

Information Technology

POSTGRADUATE COURSES

2017



Master of Information Technology

This degree provides the opportunity to strengthen your understanding of underlying principles by applying them to practical, industry-focused problems. The knowledge and skill you gain in the coursework units is consolidated through a capstone project in a leading-edge topic.

WHO SHOULD APPLY

Information technology graduates seeking to hone their skills in specialist areas, or experienced IT professionals seeking to consolidate and advance their existing skills with the latest in best practice.

KEY FEATURES

- Study units which have been developed in partnership and consultation with industry
- Gives you the opportunity to undertake a major project, providing you with practical, industry-based experience.

AIMS OF SPECIALISATIONS

INTERNETWORKING AND CYBER SECURITY

The aim of this specialisation is to prepare the IT professionals and managers for the challenging network and security issues emerging with today's technologies, processes and practices to be able to protect the public and private infrastructure including networks, computers, and software from cyberattacks and threats. We train IT professionals and network administrators to control cyberspace which is a complex environment consisting of interactions between people and software services supported by worldwide distribution of information and communication technology.

MANAGEMENT

The aim of this specialisation is to prepare the IT professionals and managers for management roles in IT related aspects of business, developing an appreciation of the technical aspects and challenges of modern IT systems for the provision of high quality IT services in enterprise and business settings. We train managers and IT professionals to meet fundamental IT sector needs such as planning for the development of major projects and enterprise systems and improving business processes, while gaining skills essential for a management role in the IT sector.

INTERSHIPS

Our internships provide opportunities to advance professional skills with a group of leading technological companies, such as Amazon Web Services, Domain, Huawei, EY, Fairfax Media, Microsoft, Agilent Security Risk and Resilience Consultancy Company, and Macquarie University Hospital. Designed to work side-by-side with experienced IT managers and network administrators, you will be placed into the industry to work on specific IT tasks and to gain local experience in Australian industry. We offer a number of internships equivalent to 8-16cp units as a part of your MIT degree. Internships are not compulsory and are offered as an option to high achieving students who want to gain local work experience in Australia, instead of doing two to four elective postgraduate units.

CAREER OPPORTUNITIES

INTERNETWORKING AND CYBER SECURITY

Graduates of the Internetworking and Cyber Security specialisation find employment in companies requiring advanced technical knowledge for administering networks, and are able to develop career specialisations in new and emerging technology companies, particularly in the area of cyber security.

MANAGEMENT

Graduates of the Management specialisation use their qualification to move into managerial roles. A range of positions emerge for those IT professionals with broad technical knowledge and a sound business context for managing systems.

INDUSTRY PARTNERSHIPS

The department has strong relations with a number of global and local IT companies such as, Optus, CISCO, Amazon Web Services, Huawei, EY, and Microsoft.

ADMISSION REQUIREMENTS

Australian level 7 bachelor's qualification or recognised equivalent in non-IT discipline;

- **AND** at least 6 credit points in core computing units at 1st year university level relevant to the Master's specialisation (units equivalent to comp115 and comp125 for Internetworking and Cybersecurity and Web Engineering specialisations, and units equivalent to isys104 and isys114 for Information Systems and Management specialisations);
- **AND** GPA of 4.75 (out of 7.00)
- **OR** work experience of at least 3 years (Full Time) duration in a relevant area.

Master of Information Technology

Faculty:	Faculty of Science and Engineering	Award:	Master of Information Technology
Candidature length:	2 years (full time) equivalent part-time	Attendance modes:	Internal
Study period offerings:	Session 1 (February), Session 2 (July)	Study modes:	Full-time, Part-time
Total credit points:	64		
English language proficiency:	IELTS of 6.5 overall with minimum 6.0 in each band, or equivalent		
General requirements:	Minimum of 16 credit points at 600 level. Minimum of 48 credit points at 800 level or above. Completion of other specific minimum requirements as set out below.		

SPECIFIC MINIMUM REQUIREMENTS:

800 level or above			Credit Points
Required	ITEC812	Special Topic in Information Technology (4)	4
Required	4 credit points from	ITEC units at 800 level	4
Required	16 credit points from	ITEC897	Industry Based Internship 1 (16)
	or 16 credit points from	ITEC898	Industry Based Internship 2 (8cp) and 8cp from the below units:
	or 16 credit points from	ITEC810	Information Technology Project (4cp) and 12cp from the below units:
		Choose from these below units, each worth 4 credit points:	
	ACCG922	Accounting Information Systems (4)	
	BUS800	Electronic Commerce Strategy (4)	
	BUS840	Business Project Management (4)	
	EDIT982	Content Management for Print and Online Delivery (4)	
	ENVS808	Introduction to Geographic Information Science for Postgraduates (4)	
	ENVS853	Environmental Applications of GIS and Remote Sensing (4)	
	ICOM897	Interactive Communication (4)	
	ITEC units at 800 level		
	MKTG804	E-Business Marketing (4)	
	MKTG833	Social Media Management (4)	
	PICT808	Cyber Terrorism and Information Warfare (4)	
	PICT840	Cyber Crime (4)	
	PICT848	Cyber Security (4)	
	STAT828	Data Mining (4)	
	STAT878	Modern Computational Statistical Methods (4)	
Required	1 specialisation	(Management or Internetworking and Cyber Security)	40
TOTAL CREDIT POINTS REQUIRED TO SATISFY THIS PROGRAM			64

In order to graduate students must ensure that they have satisfied all of the above general requirements of the award.

Specialisations

Requirements for the Specialisation: Completion of a minimum of 40 credit points including the following prescribed units:

MANAGEMENT

Required 16 credit points from 600 level unit	Credit Points
ITEC600 IT and the Future of Society	4
ITEC601 Enterprise Systems Integration	4
ITEC602 Management of IT Systems and Projects	4
ITEC654 Applications, Modelling and Development	4
ITEC660 Technology Management	4
ITEC699 Foundation Topic in Computing	4

Required 800 level or above units	Credit Points
ITEC832 Enterprise Application Integration	4
ITEC841 Information Systems Project and Risk Management	4
ITEC842 Enterprise Management	4
ITEC844 Strategic Project Management	4
ITEC854 Security Management	4
ITEC871 Information Systems Design and Management	4

TOTAL CREDIT POINTS REQUIRED TO SATISFY THIS SPECIALISATION

40

INTERNETWORKING AND CYBER SECURITY

Required 16 credit points from 600 level unit	Credit Points
ITEC643 Cryptography and Information Security	4
ITEC647 Data Communications	4
ITEC649 Web Technology	4
ITEC697 Computer Networks	4
ITEC692 Systems Programming	4
ITEC699 Foundation Topic in Computing	4

Required 800 level or above units	Credit Points
ITEC801 Distributed Systems	4
ITEC803 Advanced Topics in Computer Networks	4
ITEC850 Network System Design	4
ITEC851 Mobile Data Networks	4
ITEC852 Advanced System and Network Security	4
ITEC855 Security Technologies and Forensic Analysis	4

TOTAL CREDIT POINTS REQUIRED TO SATISFY THIS SPECIALISATION

40

[^]Computing bachelor graduates may apply for exemptions from these units.

Introducing some of our Master of Information Technology graduates



CHRISTINE SOO-YUN LEE

"I first completed a Bachelor of e-Business majoring in Technology at Macquarie University. I have learnt and been exposed to technical sides in IT including infrastructure and software, and also developed an interest in IT project management during bachelors study.

Managing IT Projects is a dynamic, challenging and fascinating area of

IT. I believe being an IT project manager provides opportunities to explore IT infrastructure & applications, the business side, customer services, HR management and many other areas as well.

Studying the Master of Information Technology at Macquarie University certainly covered all areas I've wanted to learn in IT project management through case studies, managing various IT projects with students from different industry areas and career backgrounds.

My current position is IT Infrastructure Support Analyst and this is my 4th position within the last 5 years. I am certainly moving towards my (current) ultimate career goal and studying MIT at Macquarie University definitely was a big part of it and enhanced my career progression."



LEISHNA GEEGA

"The openness of the Macquarie Master of IT program really appealed to me. Macquarie University's fantastic and well-structured MIT curriculum gives its students the possibility to complete their degree by providing extensive hands on experience on real-world projects.

Previously studying a bachelor's degree in Queensland, Macquarie's excellent

vibrant campus life, facilities and international recognition and prestige has largely influenced my choice. Macquarie's IT program also aimed at identifying the different areas of expertise which are in demand in the IT field in the Australia and incorporated those courses in its MIT curriculum. Personally, my experience at Macquarie was enriching, academically challenging, stimulating and enjoyable."

FIND OUT MORE

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To find out more about the Master of Information Technology, visit:
courses.mq.edu.au

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Disclaimer: This publication is correct at time of printing, March 2017. Macquarie University reserves the right to change program details at any time and change its fees without notice.



JASON WAN

Jason came to Australia five years ago from Malaysia to work for global hearing technology company Cochlear Ltd on Macquarie's campus. Jason managed full-time work and study so successfully, he was rewarded with a Vice Chancellor's Commendation for Academic Excellence, a 'great honour.' He attributes his success to dedication and passion.

"I wanted to pursue a masters degree and refine my skills in information technology. Although a passion for IT was my motivation, I knew a postgraduate degree in this field would widen my career options. One of the pluses of Macquarie was its attractive campus and strategic location in Sydney's high-technology precinct."

While he enjoyed 'every moment' of his course, Jason highlights the Information Technology Project unit as the most satisfying aspect.

"I got to conduct research in the topic that is close to my heart and share my findings. What I like about Macquarie is that there are a lot of interesting subjects to choose from. The Australian style of teaching has more practical components and allows for more student interaction and engagement."



ALAN BLUWOL

"After completing my Bachelor of e-Business at Macquarie I was becoming more interested in business intelligence and database-related topics so I decided to study the Master of Information Technology, specialising in Information Systems. I feel my studies at Macquarie have contributed to me being able to adapt more quickly and take on more varied

roles, whilst others around me who specialised in one area, have been more susceptible to changes in skill demands. I currently work as an IT Consultant for a Business Intelligence Specialist."



SHIRREN PREMARATNE

"I chose to study the Master of IT at Macquarie because it offers one of the most interesting and flexible masters programs.

Also, the Department of Computing has some interesting research groups and the masters program offers access to some of these groups through project work. The good thing about this degree is that for me it provides

a good balance between theoretical and industry relevant practical knowledge. It also helps that the staff are approachable and supportive."